

Notice of Allowability

Application No.

09/741,663

Examiner

Roy M. Punnoose

Applicant(s)

SHCHEGROV ET AL.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to I.D.S received on July 01, 2004.
2. ☒ The allowed claim(s) is/are 1-36 and 49-104.
3. ☒ The drawings filed on 19 December 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

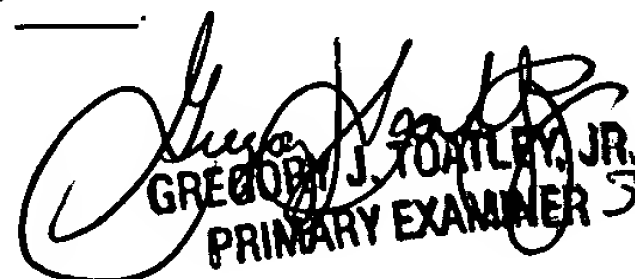
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 7/1/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


GREGORY J. TOATLEY, JR.
PRIMARY EXAMINER SPE 2877

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on July 01, 2004 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on July 01, 2004 was filed after the mailing date of the Notice of Allowance on March 30, 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the documents listed in the information disclosure statement have been considered by the examiner.

Allowable Subject Matter

3. Claims 1-36 and 49-104 are allowable.

4. Claims 1, 49, 75, 99, 101 and 103 are allowable because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for finding a profile of a structure on and/or below one or more layers of material, said structure having a dimension in the micron or sub-micron range and fabricated by a process, wherein a measurement is carried out by directing a polychromatic beam of electromagnetic radiation at said structure and detecting at a number of wavelengths corresponding radiation data from said beam after it has been modified by the structure

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and the one or more layers, the method comprising, selecting a profile type from a gallery based on information on the process, and, comparing the measured radiation data to the set of radiation data associated with the selected profile type to arrive at a set of values of one or more parameters, in combination with the rest of the limitations of the respective claims.

5. Claims 2-18, 50-61, and 76-87 are allowable because they are dependent on independent claims 1, 49, or 75, or an intermediate claim.

6. Claims 19, 62, 88, 100, 102 and 104 are allowable because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for finding a profile of a structure on and/or below one or more layers Of material, said structure having a dimension in the micron or sub-micron range and fabricated by a process, wherein a measurement is carried out by directing a polychromatic beam of electromagnetic radiation at said structure and detecting at a number of wavelengths corresponding radiation data from said beam after it has been modified by the structure, the method comprising, selecting a profile type from the gallery, at least one radiation parameter and at least one set of radiation data associated with such profile type based on sensitivity of such data to a change in the one or more parameters of the profile type and/or of the one or more layers, and, comparing the measured radiation data to the at least one set of radiation data associated with the selected profile type to arrive at a set of values of the one or more parameters, in combination with the rest of the limitations of the respective claims.

7. Claims 20-36, 63-74, and 89-98 are allowable because they are dependent on independent claims 19, 62, or 88, or an intermediate claim.

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8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

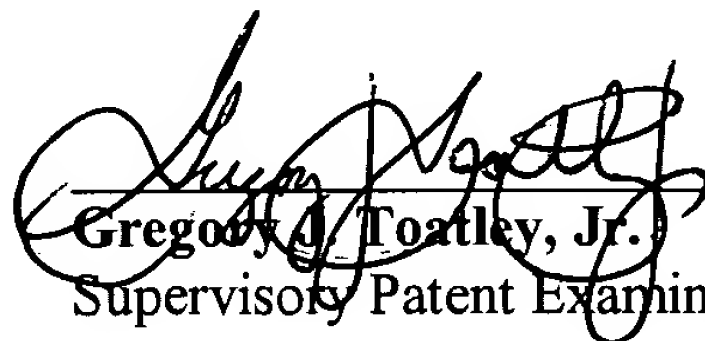
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **571-272-2427**. The examiner can normally be reached on 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Gregory J. Toatley, Jr.** can be reached on **571-272-2800 ext.77**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roy M. Punnoose
Patent Examiner
Art Unit 2877
August 27, 2004



Gregory J. Toatley, Jr.
Supervisory Patent Examiner